MEYERCORD

“M”- 120 Stamp Line Installation/Service Manual

(#322-998)

Information, Orders, & Technical Support: 1-800-639-3799

The Meyercord Company reserves the right to make necessary alterations in the machine specifications to meet customer requirements. Some illustrations and information in this manual may not exactly match in detail each machine.

The contents of this manual have been prepared to help you install and understand the machine you have just received. Keep this manual available for quick reference. After reading the following manual you should be able to setup, inspect and operate your M120 stamp line.

<u>Caution:</u> Do not remove or override any safety guarding from this machine. The guarding has been provided to protect your personnel from moving machine parts which can cause serious injury.

1.2 - Important Phone Numbers

Information, Orders, & Technical Support:
1-800-639-3799

Revenue Service Fax:
1-630-682-6365

Parts Dept. Fax:
1-630-682-6353

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The Meyercord Company, 475 Village Drive, Carol Stream, IL. 60188.
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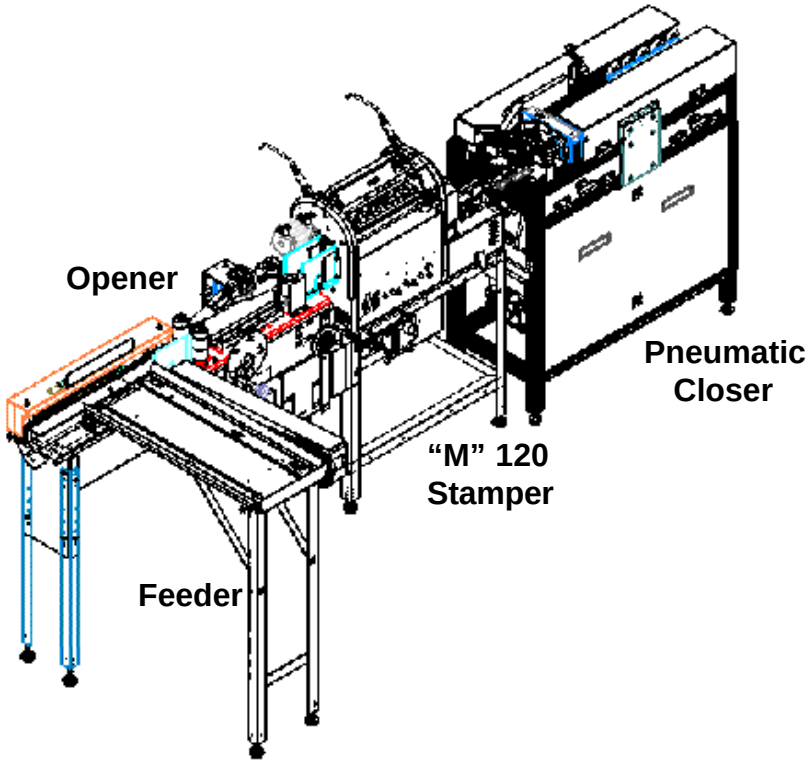
STAMP LINE SPECIFICATIONS

Before running this equipment, become familiar with the controls and know how to properly operate it. Before cleaning, inspecting or adjusting your equipment, turn off the drive motors and make absolutely sure all belts and moving parts have stopped. Don't reach into the stamp machine while the power is on. If you should accidentally activate the carton sensor, the machine will cycle. If you must push a carton through the stamp machine, use an old stamp roll core or stick. Remember to keep your hands clear of the stamp iron when the machine is in the running mode. Never operate the stamp equipment without proper guards, plates or safety devices in place. Finally, do not allow untrained or unauthorized individuals to operate the equipment.



GENERAL

Stamping Speed	+/- 90 cartons per min.
Gross Weight	680 LBS.
Electrical Requirements	120VAC, 30 Amps Dedicated line
Air Requirements	100 PSI @ 10 SCFM

MAIN FRAME DIMENSIONS

Length	125"
Height	53"
Width	40"

INSTALLATION REQUIREMENTS: ELECTRICAL

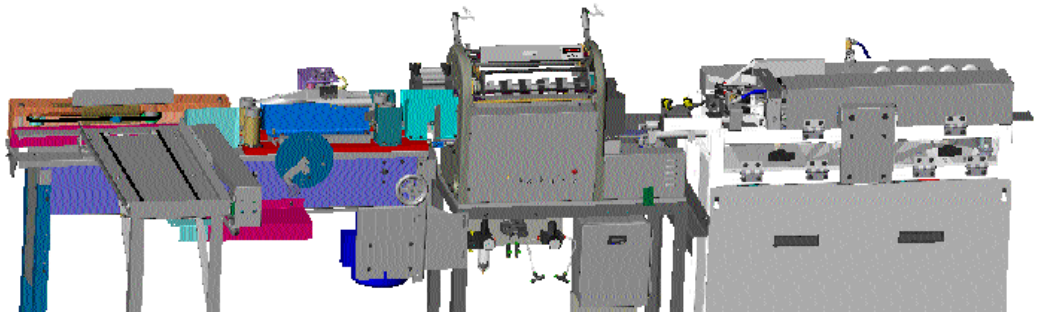
To assure a correct and safe operation, the following electrical service must be provided according to specific line configurations. (A minimum Service Access Clearance of 18" must be maintained around all equipment.)

Stamp Machine Configurations-

"M" 120 W/Hot glue - A 120VAC, 30 Amp circuit (conforming to local codes) must be connected to a NEMA #L5-3OR receptacle. A separate 125 VAC, 15Amp circuit must be connected to a NEMA #5-15R receptacle for the hot glue applicator. These receptacles must be installed within 5 feet of the equipment and must be dedicated circuits - do not connect any other electrical devices to these circuits. Approximate installation time under normal conditions is 4 hours.

"M" 120 W/Cold glue - A 120VAC, 30 Amp circuit (conforming to local codes) must be connected to a NEMA #L5-3OR receptacle. This receptacle must be installed within 5 feet of the equipment and must be dedicated circuits - do not connect any other electrical devices to this circuit. Approximate installation time under normal conditions is 4 hours.

KNOW YOUR EQUIPMENT

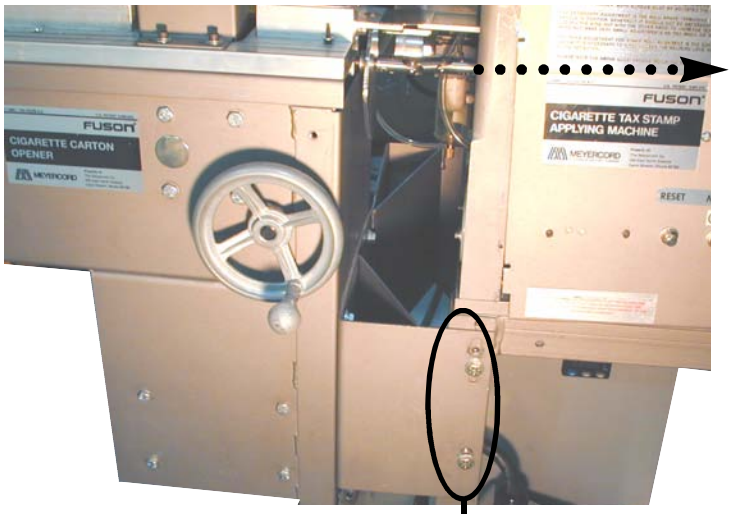


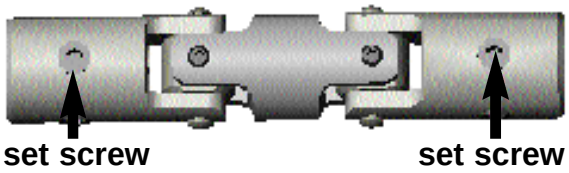
As an operator you will be working with the “M” 120 stamp line day after day. Your work will be easier, more pleasant and trouble-free if you make a special point of getting acquainted with it. You will be surprised how quickly you can learn to make simple adjustments which are occasionally necessary for proper transfer of stamps.

The purpose of this line is to apply Meyercord Fuson Tax Stamps efficiently on cigarette cartons ranging in size from regulars through 120s. Unopened cigarette cartons are fed into the system, first passing through the automatic opener where the carton flaps are opened and folded back. The cartons next enter the stamp machine where heat and pressure transfers the tax stamps to the cigarette packages. Once the stamps are fused to the packs, the cartons pass through to the pneumatic closer which applies glue to the large carton flap and reseals the carton flaps using pressurized air. They are then put back in the case and readied for shipment.

OPENER TO STAMPER ALIGNMENT

When the M120 Stamp Line is shipped to a location, the opener will already be mounted to the stamper. However, it may be necessary to readjust the alignment when installing this equipment. The Opener and Stamper are joined by a universal coupler which is used when two adjoining shafts are slightly offset. The set screws which secure this coupler need to be loosened prior to aligning the opener and stamper troughs.

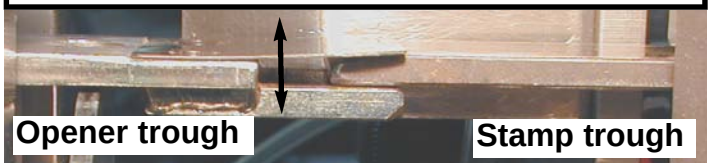




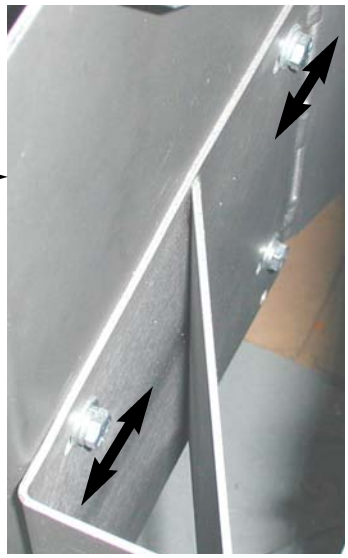
Universal coupler
(#207-356)

NOTE: Don't forget to retighten the coupler after aligning the opener with the stamper.

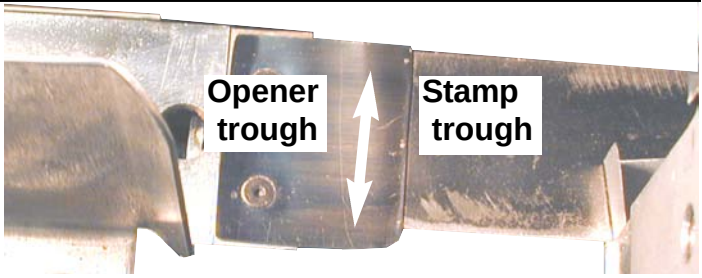
When you are adjusting the vertical positioning of the opener trough to mate with the stamp trough, the (4) yoke mounting screws which are secured to the **stamper** need to be loosened



Opener yoke mounting screws

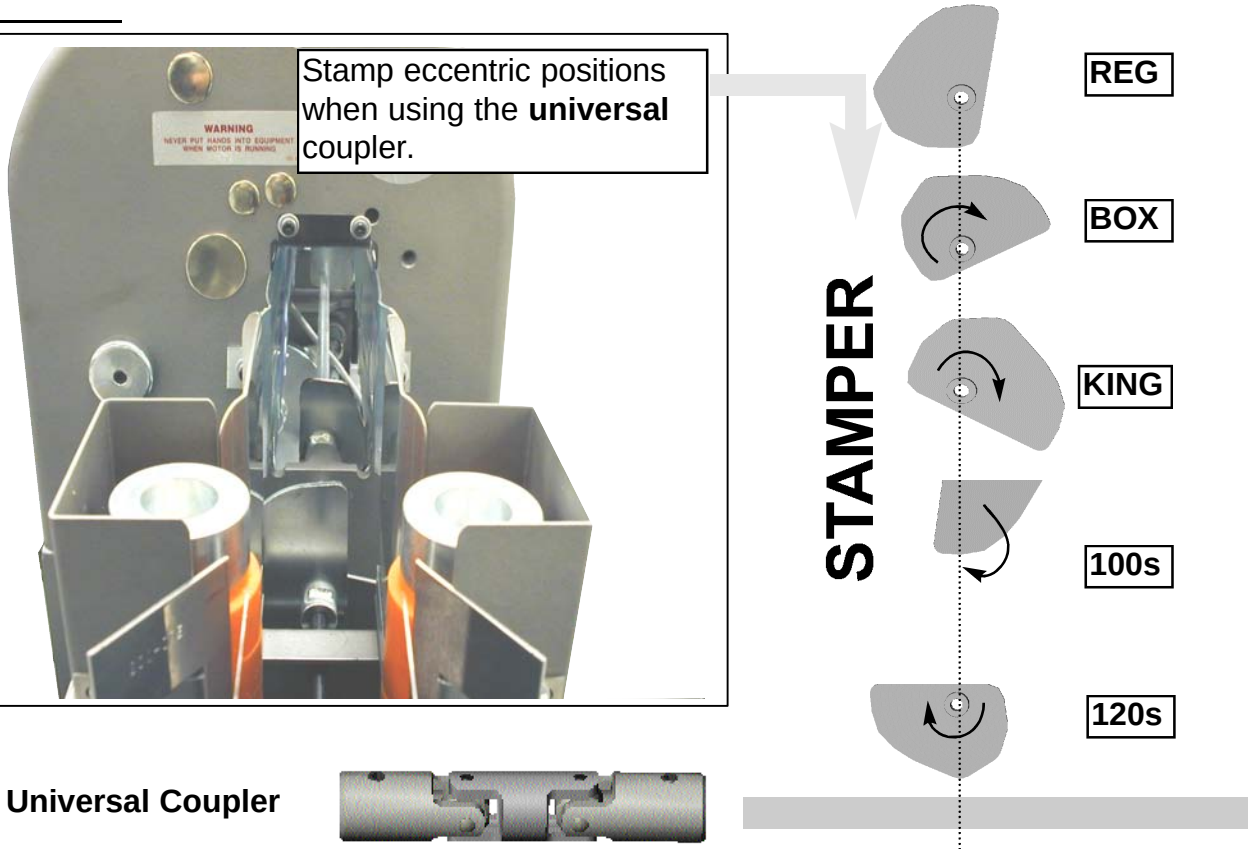


When you are adjusting the horizontal position of the opener trough to mate with the stamp trough.The 4 yoke mounting screws which are secured to the **opener** need to be loosened

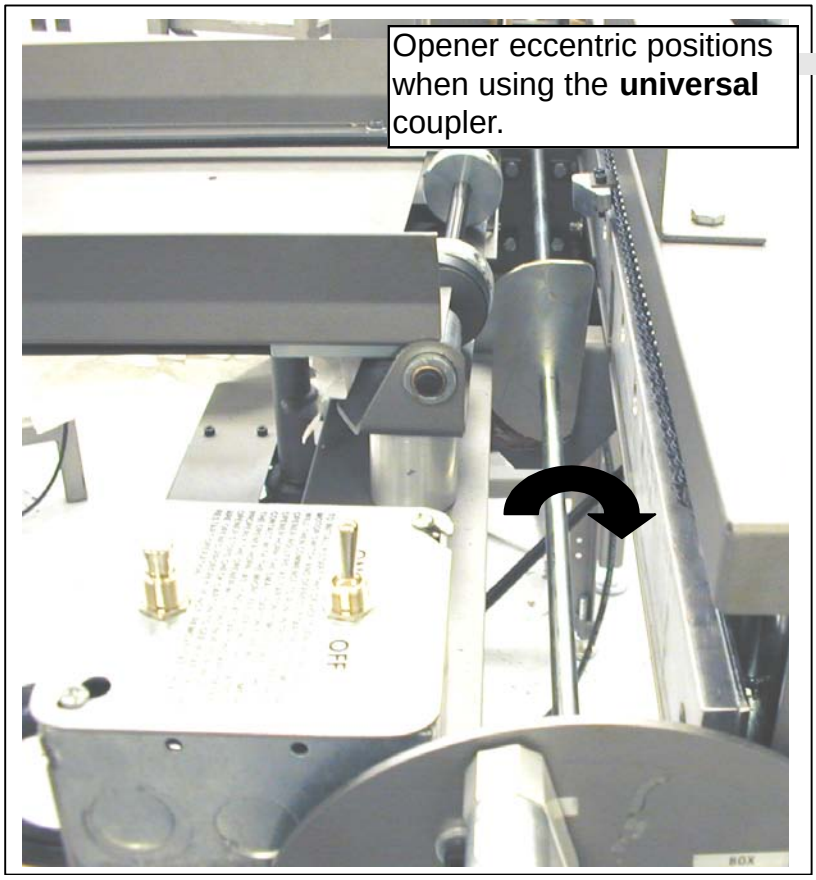


OPENER TO STAMPER COUPLING

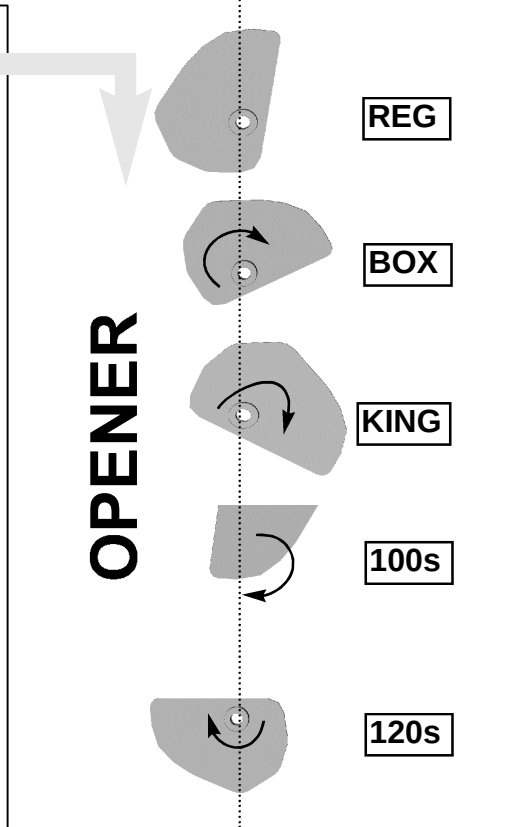
Stamp eccentric positions when using the **universal** coupler.



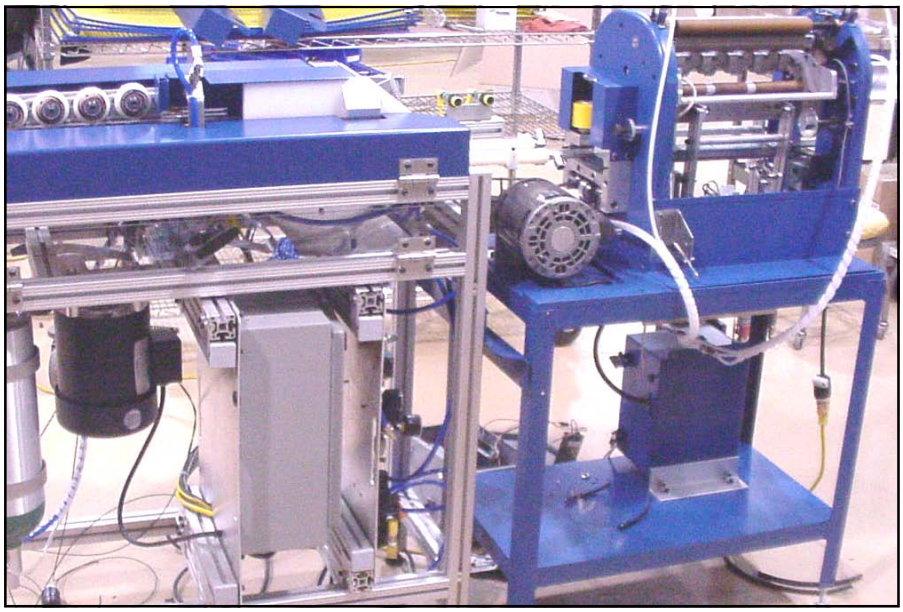
Universal Coupler



Opener eccentric positions when using the **universal** coupler.

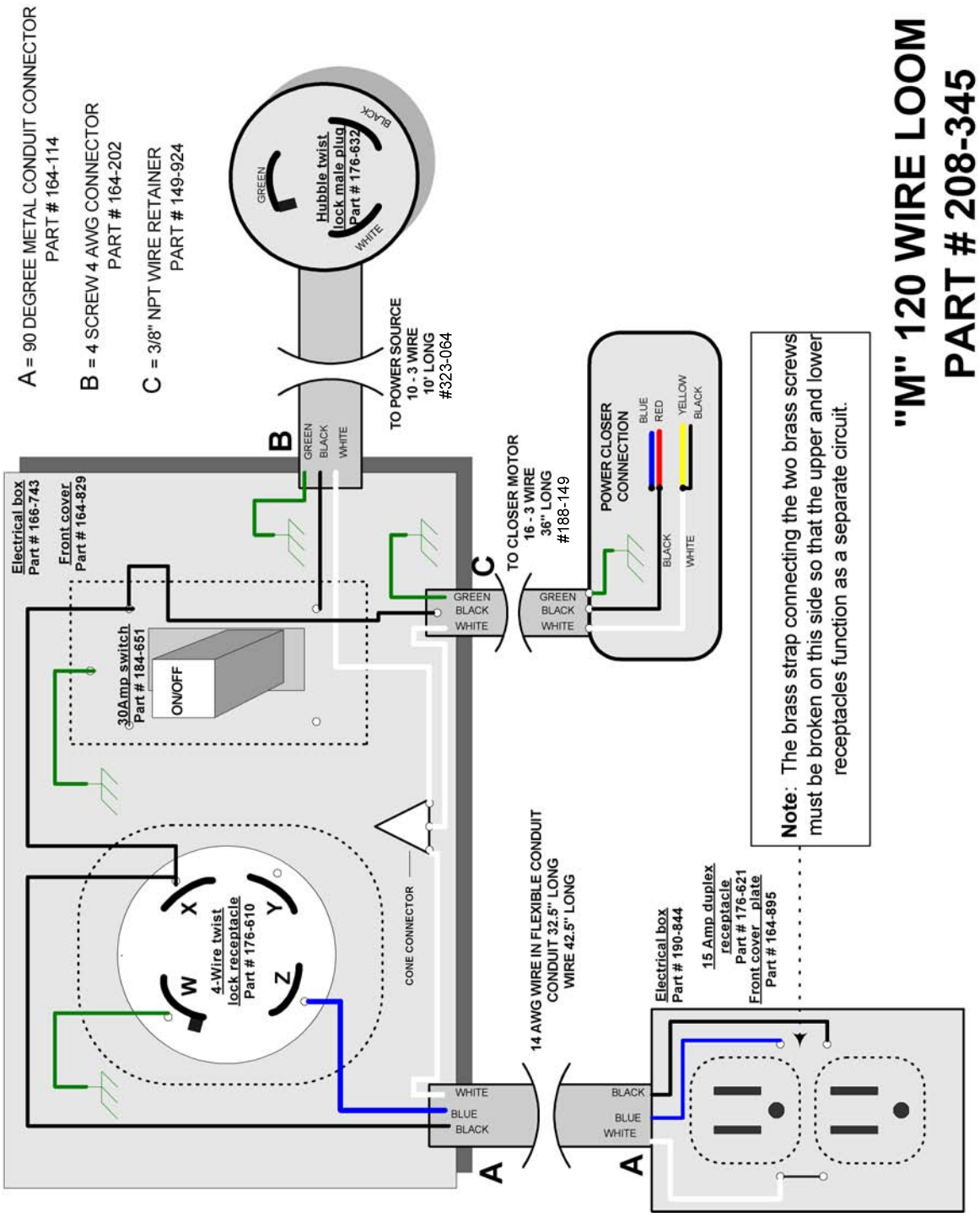


ATTACHING THE CLOSER



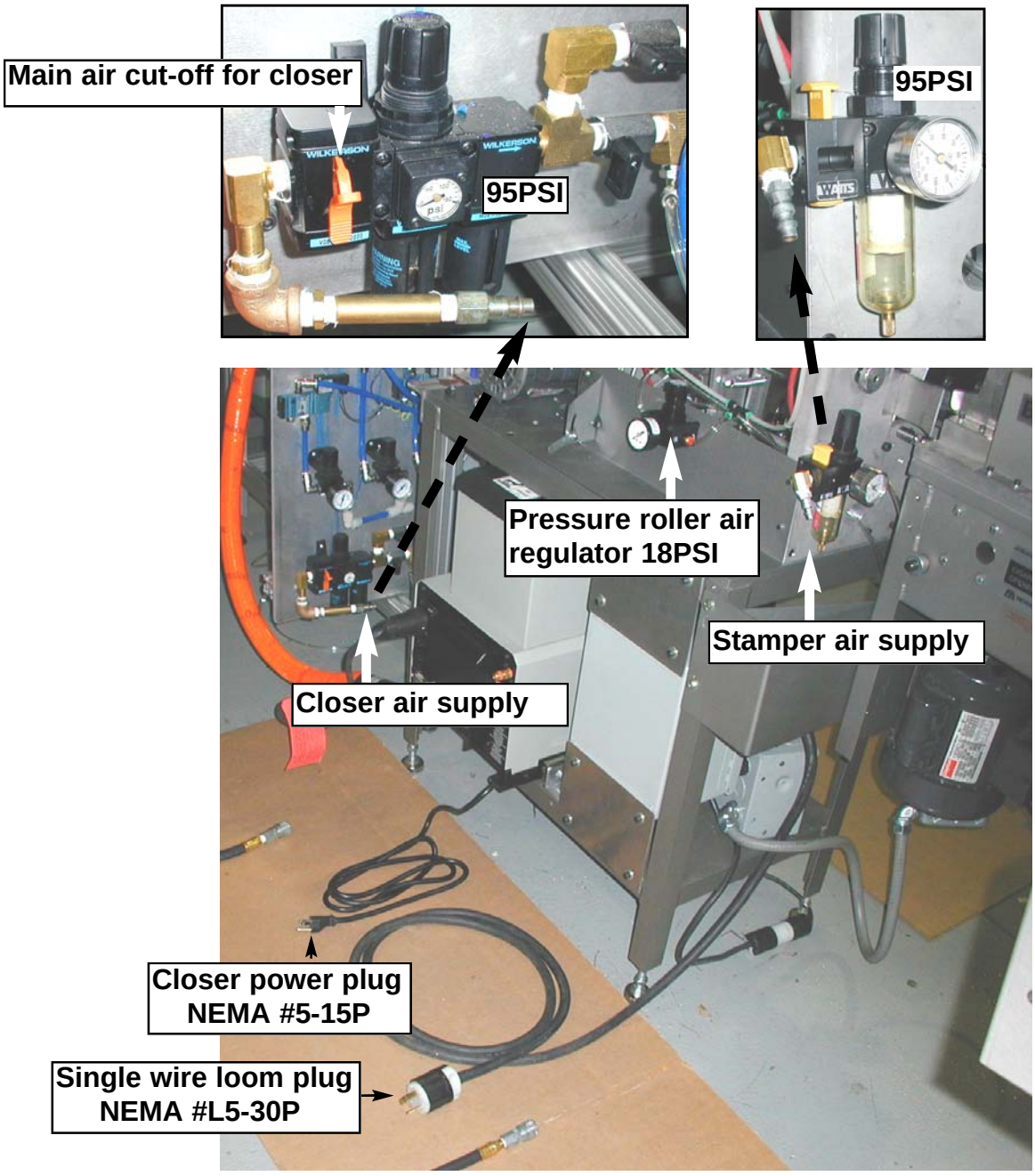
The pneumatic closer should be shipped with a stamper mounting bracket assembly (#322-327) already attached to its frame. When loosened, this bracket is free to move up/down if necessary. The stamp machine frame already has pre-drilled holes located so the two units can be brought together and secured with the hardware provided.

SINGLE WIRE LOOM



The M120 Singlewire Loom (#208-345) functions in the same manner as the standard Singlewire Loom (#156-205) except that the pneumatic closer power will remain on when the angle table switch or the loom's power switch is turned off. To remove power from this closer, simply push in its red "E" Stop button.

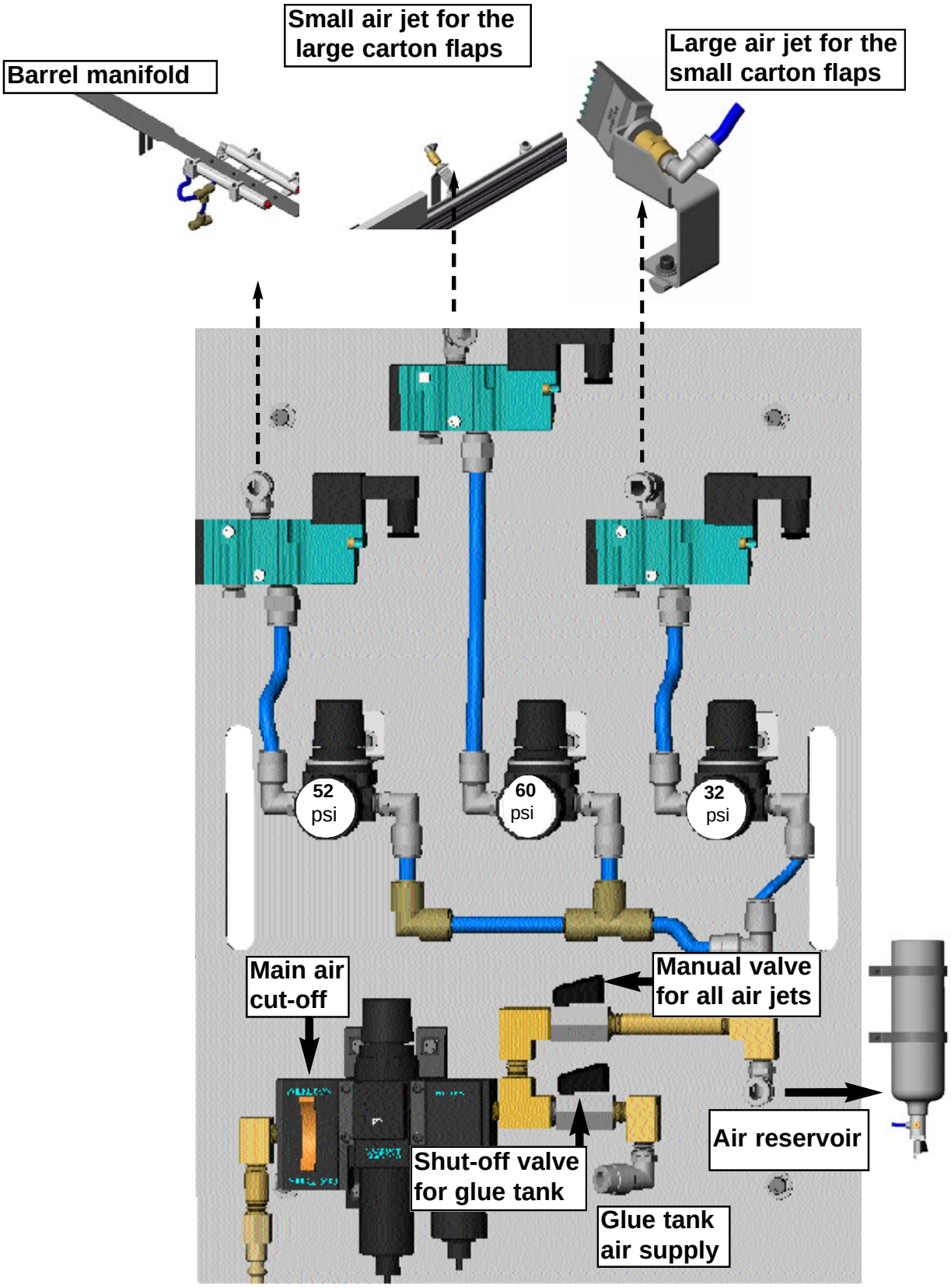
EXTERNAL CONNECTIONS



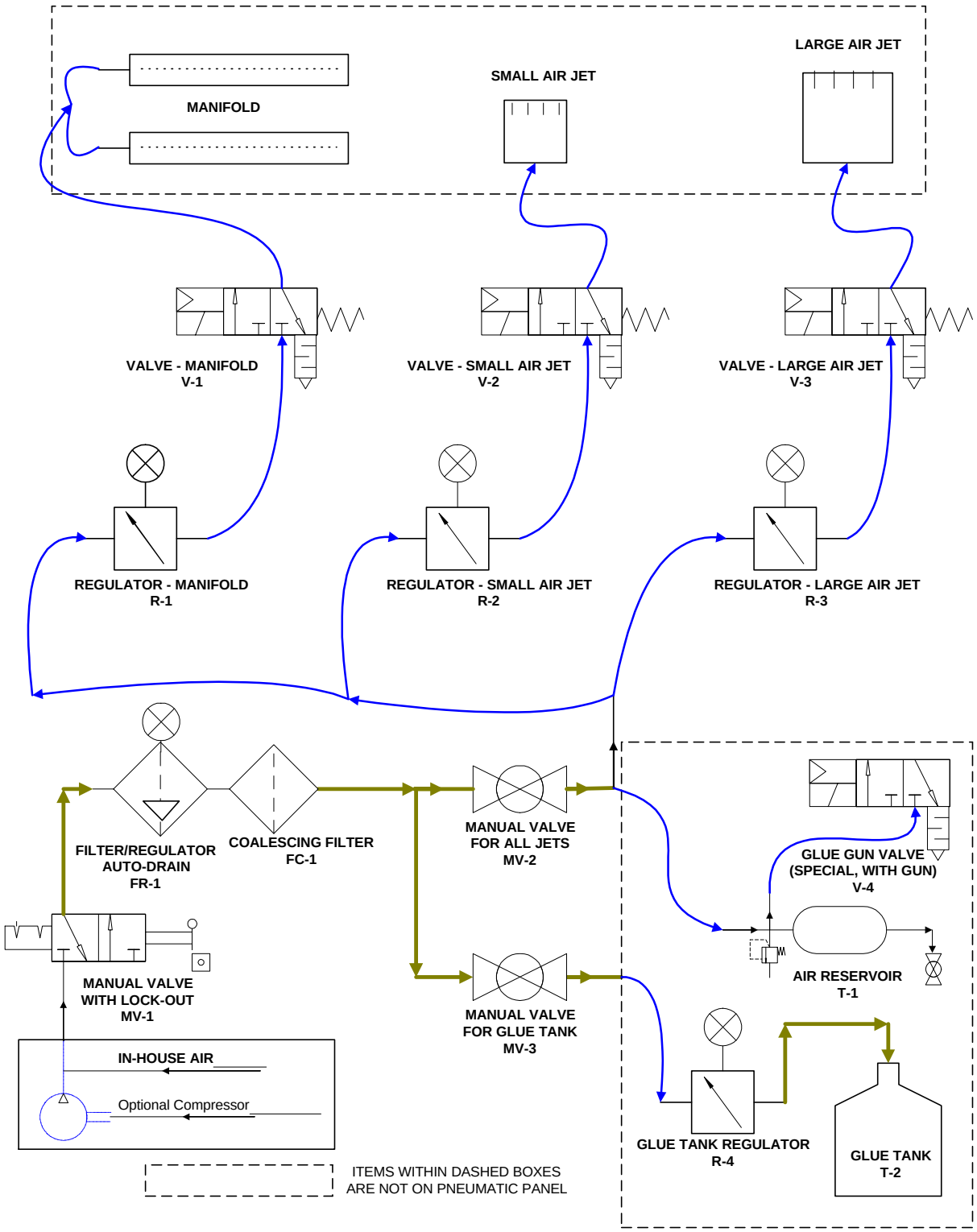
NOTE: Customer is to supply clean dry air at two inlets. The inlets are sized at 1/4"NPT.
Both air supply hoses should be terminated with 1/4" Industrial quick-disconnect female couplers.

CLOSER PNEUMATIC PANEL

Located under closer

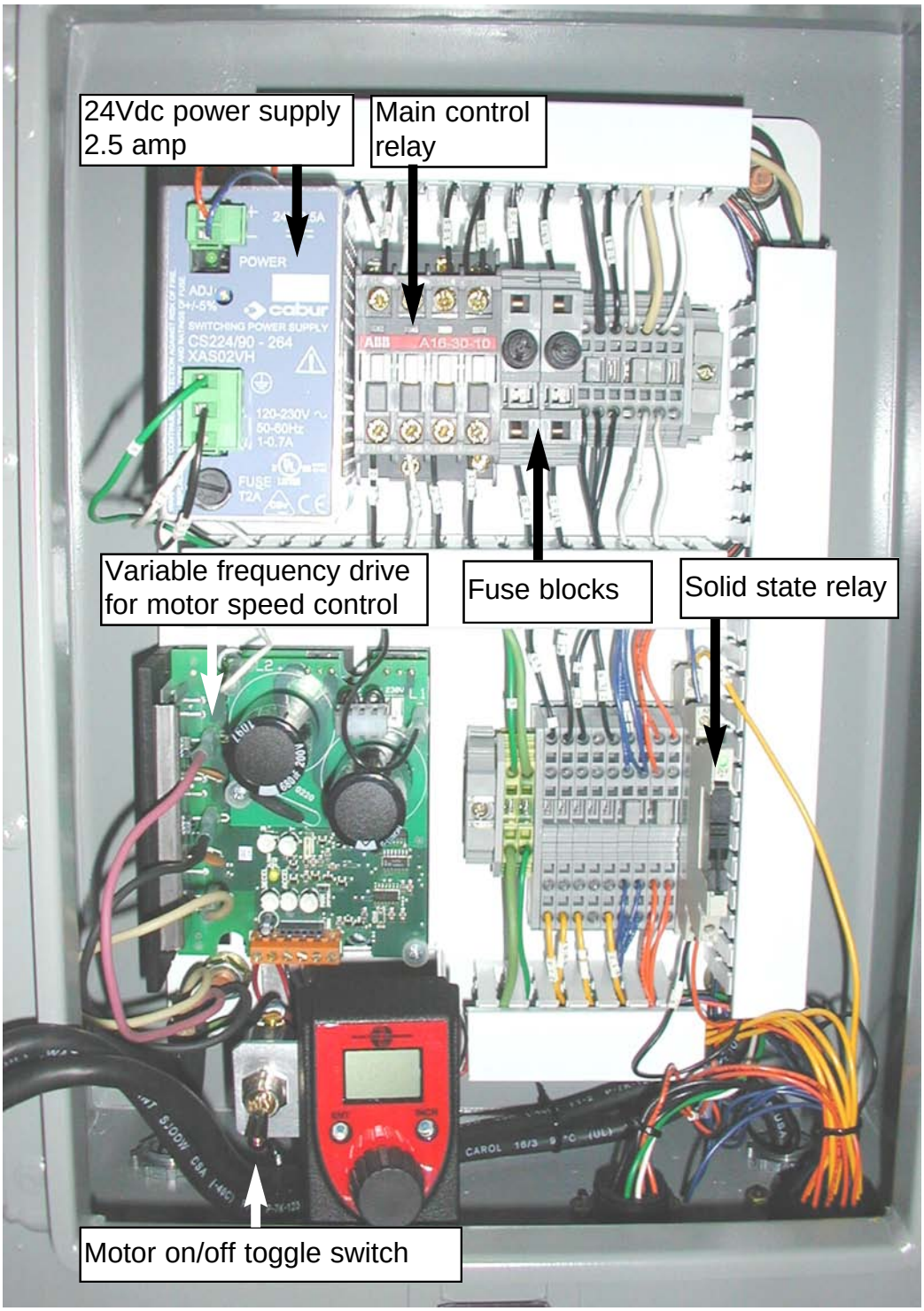

Barrel manifold
Small air jet for the large carton flaps
Large air jet for the small carton flaps
52 psi
60 psi
32 psi
Main air cut-off
Manual valve for all air jets
Air reservoir
Shut-off valve for glue tank
Glue tank air supply

PNEUMATIC DIAGRAM

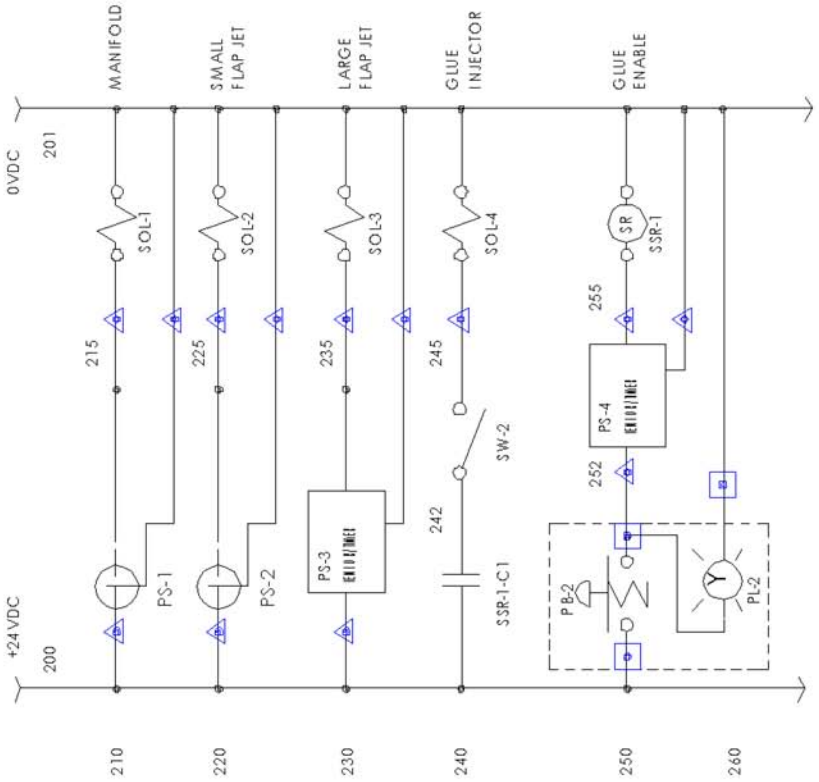


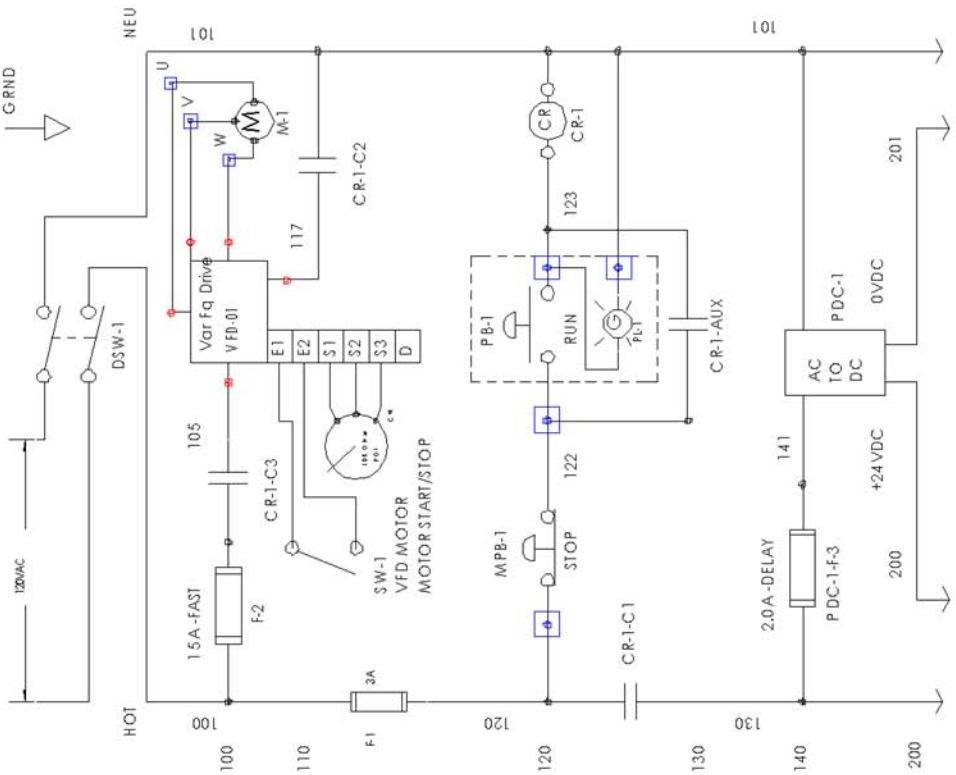
CLOSER ELECTRICAL BOX

Located under closer

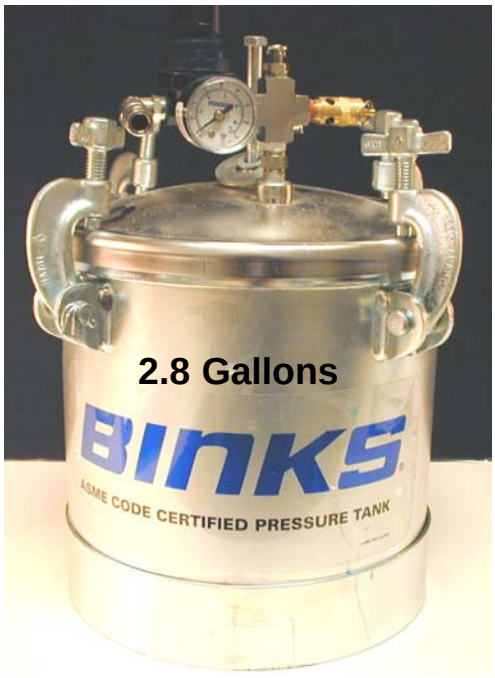


CLOSER ELECTRICAL SCHEMATIC





COLD GLUE APPLICATION



The binks 83Z pressure tanks are designed as a pressure container to supply cold glue at a constant preset pressure up to a maximum of 80PSI. these tanks include stainless steel wetted parts, a stainless steel lid and polyethylene liner, allowing use with water borne materials.

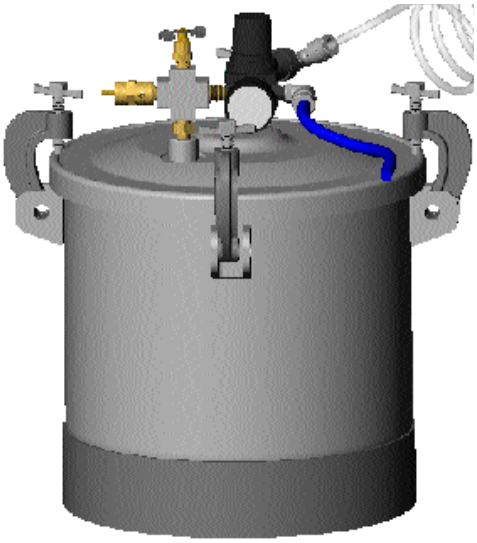
WARNING

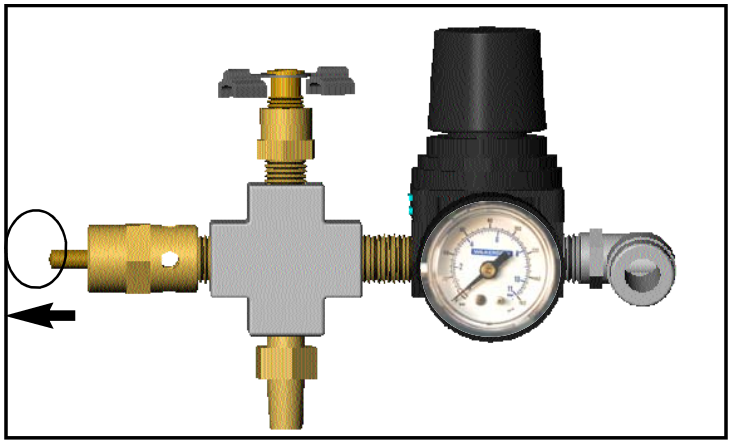
Pressure relief procedure

High pressure can cause a serious injury. Pressure is maintained in a pressure tank after the system has been shut down. Before attempting removal of fill plug or cover, pressure must be relieved using the following steps.

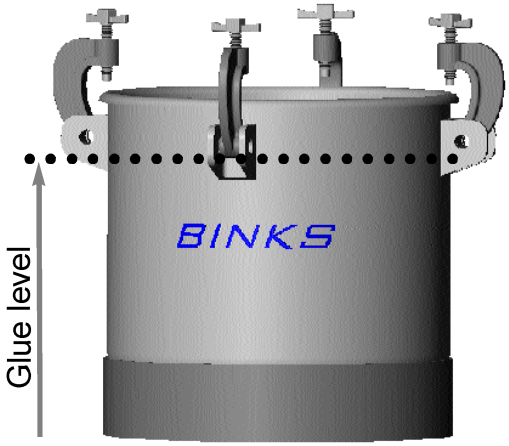
1. Turn off the closer main air cut-off valve. This valve is located on the bottom of the closer pneumatic panel where the air line connects and should be red or orange colored.
2. Bleed off air in the tank by pulling the ring on the safety valve, located on top of the tank, until the pressure gauge indicates “0” PSI.

FILLING THE GLUE TANK





<u>Always relieve all air pressure in the tank before loosening thumbscrews.</u> Open the main air supply valve locate on pneumatic panel and Pull the ring on the safety valve until the pressure bleeds down and the pressure gauge indicates “0” PSI.



Loosen thumb screws, tip lid clamps back and remove lid assembly.
Pour cold glue into the tank to within 2” below the rim.

Replace the lid assembly and tighten clamps and thumbscrews securely.
<u>Restore pressure only after lid is securely tightened down</u>.

REORDERING GLUE

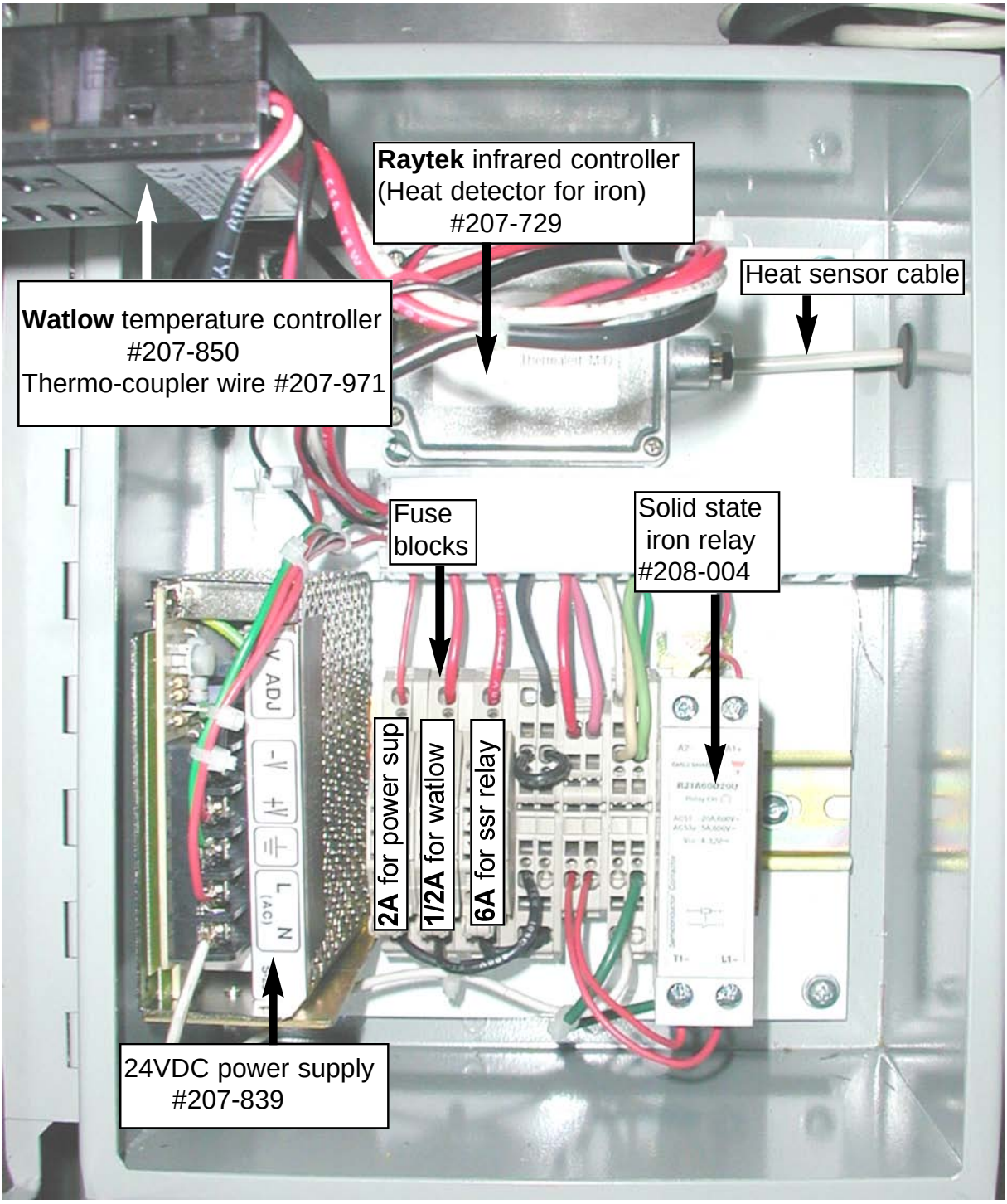
TO REORDER GLUE CALL: 630-682-6200

Cold Glue Liquid Adhesive #208-367
(Keep from freezing)

Hot glue chips #168-767

STAMP TEMPERATURE CONTROLLER

Located under stamper



RAYTEK CONTROLLER ADJUSTMENT

M-Stamp Machine, Digital Temperature Controller

Matching Iron Temperature to Displayed Controller temperature

RAYTEK MID INFRARED SENSOR ADJUSTMENT

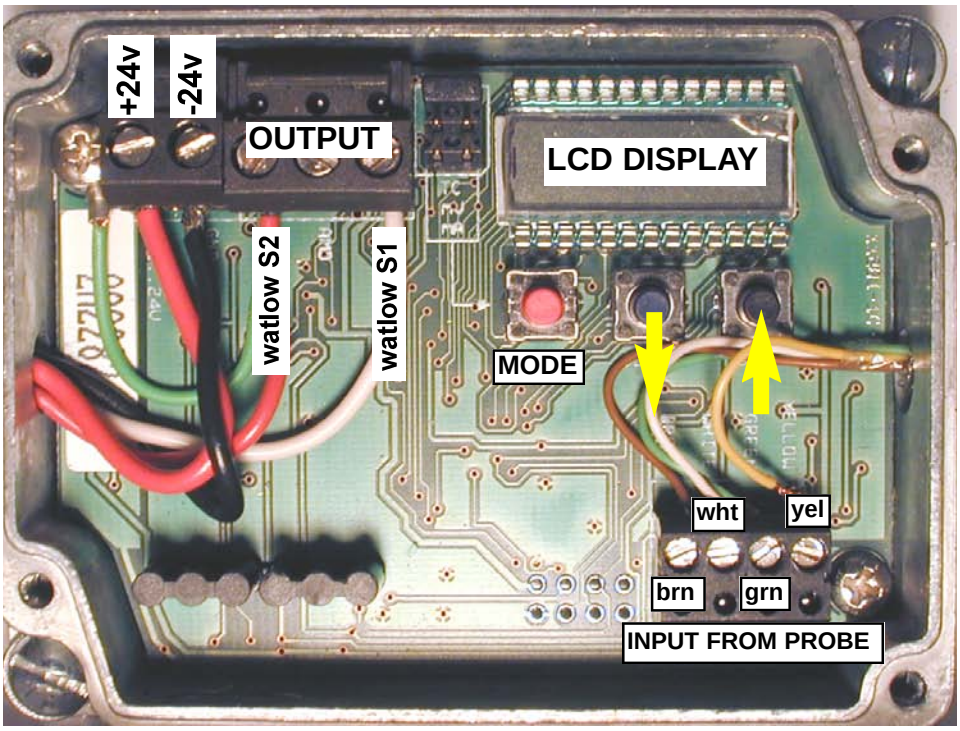
With a target area of the iron blackened and located at the cold end of the iron, there exists a gap or offset between the desired displayed temperature and the actual temperature of the target area. Also, there may be a gap between the displayed temperature on the controller and the temperature measured by a reliable thermocouple-based meter. If an adjustment is desired to narrow the gap between the displayed controller's temperature and the desired temperature, the emissivity setting of the Raytek MID infrared sensor may be adjusted to close this gap. (The emissivity of a surface is dependent upon several factors including but not limited to material, finish, reflectivity, and surrounding bodies.)

Please note that dirt, carton dust, or other obstructions on the lens of the infrared sensor may interfere with an accurate temperature reading. Keeping the lens clean is important. one may clean the lens with clean, dry, compressed air and a clean, non-abrasive cloth dampened with distilled water. any sensor with len's debris not removable by these two means should be sent back to the manufacturer for professional service and calibration.

RAYTEK CONTROLLER ADJUSTMENT

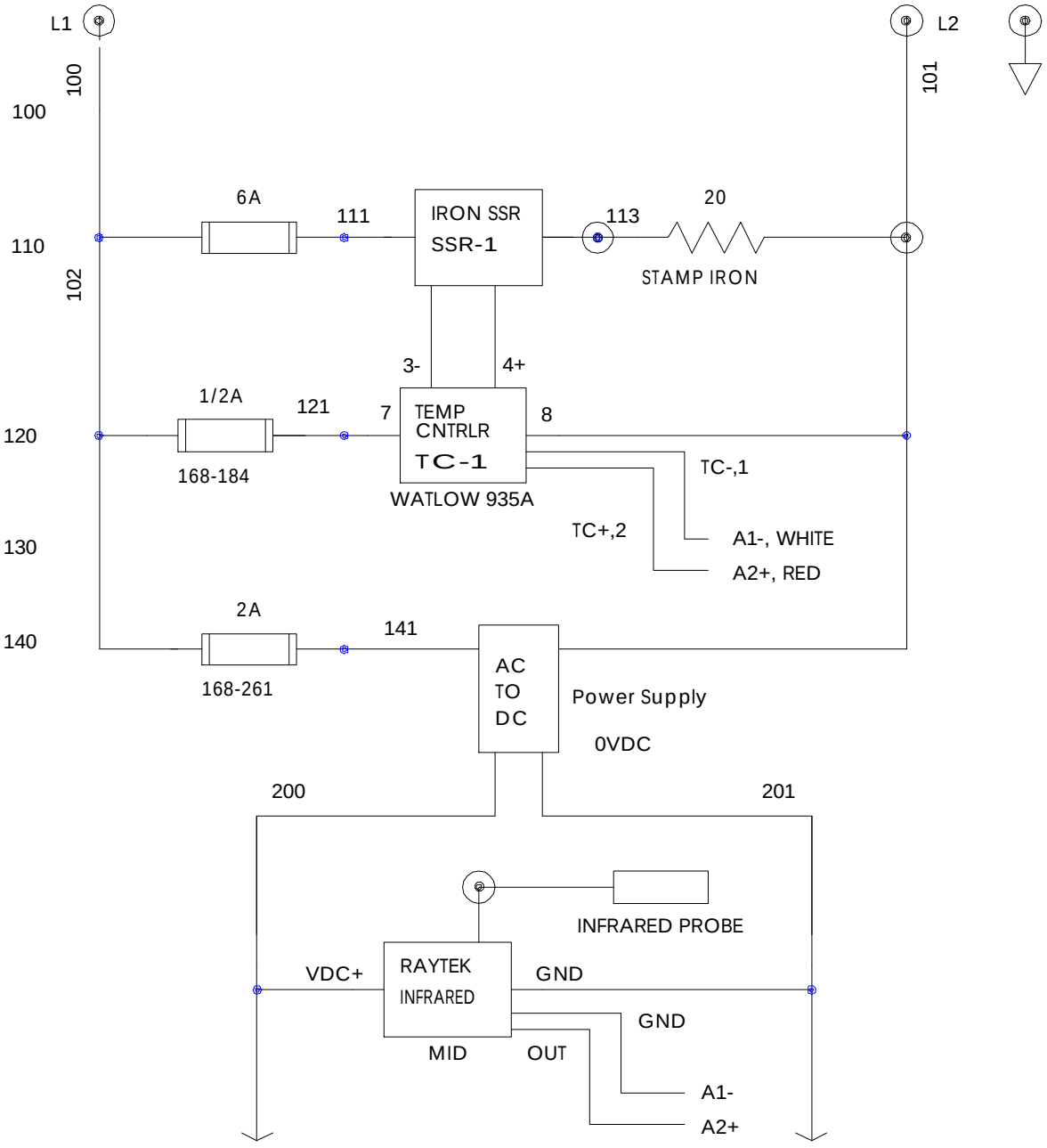
WATLOW

RAYTEK



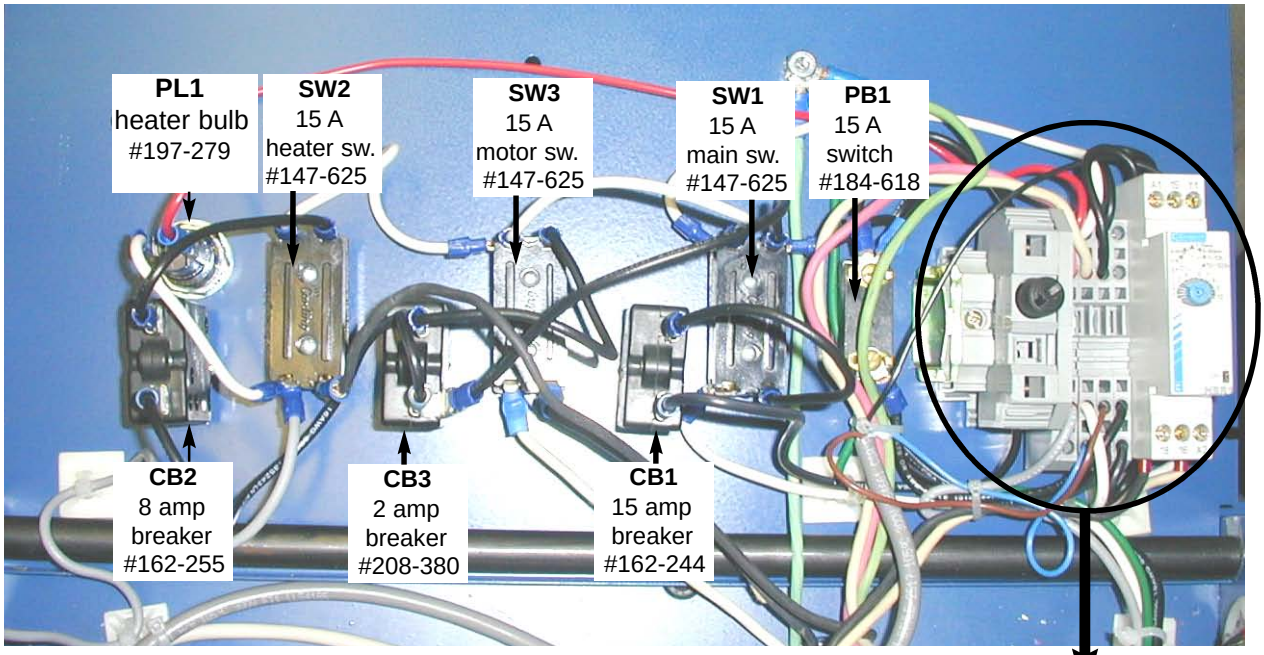
1. Open the door of the Temperature control Box.
2. Locate the Raytek MID enclosure. The cover is labeled “Raytek Thermalert MID”.
3. Remove the cover by removing 4 phillips screws in the 4 corners of the enclosure.
4. Locate the small LCD display in the upper right corner of the circuit board in the enclosure.
5. Locate the small push buttons (one red and 2 black) below the LCD display.
6. Push the red (left) button to step through the menu of variables available. Specifically, press the red button 4 times to get to the LCD display beginning with the letter “E” for emissivity. the numbers after the ”E” is the value for emissivity. it is adjustable at this point.
7. Press the right black button to increase the emissivity value or press the left black button to decrease the emissivity value. Raising the emissivity value will reduce the temperature read-out on the controller’s display.
8. Adjust the emissivity value so the displayed temperature on the controller is the desired temperature. The controller will attempt to get this displayed temperature to its setpoint during operation.

TEMP. CONTROLLER SCHEMATIC

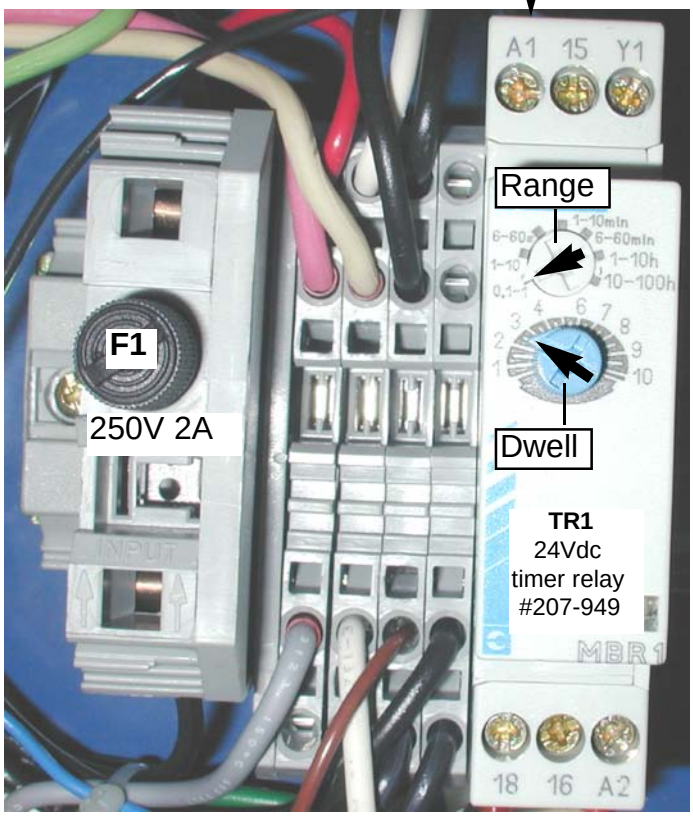


AI AND **A2** ARE THE POSITIVE AND NEGATIVE WIRES OF THE THERMOCOUPLE CONNECTION WIRE BETWEEN THE CONTROLLER AND INFRARED SENSOR BOARD.

STAMPER ELECTRICAL PANEL

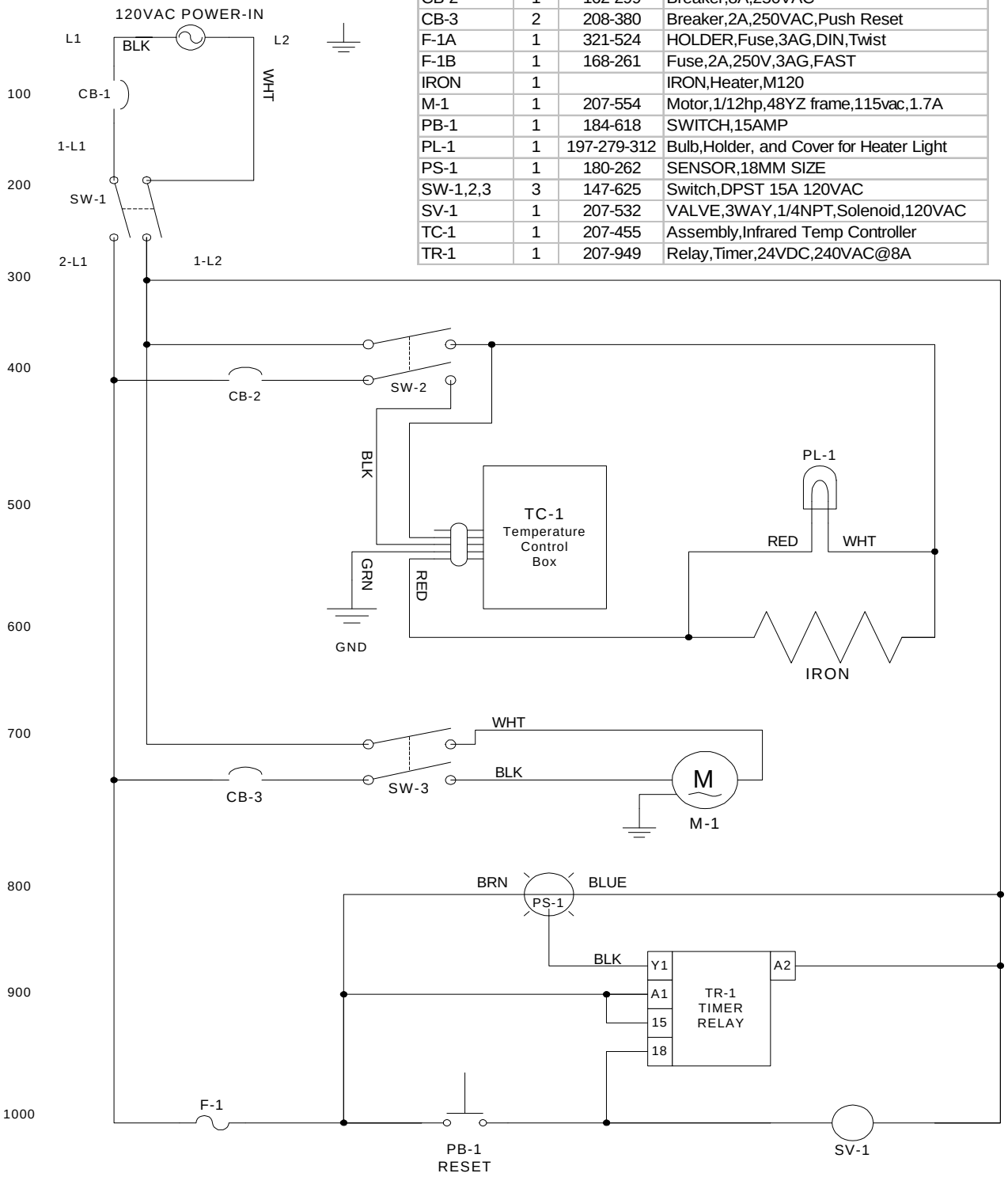


NOTE:The range for the timer relay should be set at .1 (10ths) and the setting for the iron's dwell time should be set between [.28 -.3] seconds as shown on the "TR1" timer relay.



ELECTRICAL PANEL SCHEMATIC

COMPONENT AND PART NUMBER CORRELATION			
Item Label	**Qty**	**Part Number**	**Description**
CB-1	1	162-244	Breaker,15A,250VAC,Push Reset
CB-2	1	162-299	Breaker,8A,250VAC
CB-3	2	208-380	Breaker,2A,250VAC,Push Reset
F-1A	1	321-524	HOLDER,Fuse,3AG,DIN,Twist
F-1B	1	168-261	Fuse,2A,250V,3AG,FAST
IRON	1		IRON,Heater,M120
M-1	1	207-554	Motor,1/12hp,48YZ frame,115vac,1.7A
PB-1	1	184-618	SWITCH,15AMP
PL-1	1	197-279-312	Bulb,Holder, and Cover for Heater Light
PS-1	1	180-262	SENSOR,18MM SIZE
SW-1,2,3	3	147-625	Switch,DPST 15A 120VAC
SV-1	1	207-532	VALVE,3WAY,1/4NPT,Solenoid,120VAC
TC-1	1	207-455	Assembly,Infrared Temp Controller
TR-1	1	207-949	Relay,Timer,24VDC,240VAC@8A



START UP PROCEDURE

1. Turn on power switch **“MAIN”** located on stamp machine control panel.

2. Turn on **“HEATER”** switch located on stamp machine control panel.

3. Adjust heat to appropriate temperature using the **“Watlow”** temperature controller located under the stamp machine on the front of the electrical box cover. To set the heat level, press and hold the “SET” button then push the appropriate up/down arrow to adjust to the correct temperature. Then release the “SET” button.

4. Open main colored air valve under the stamp machine to allow air supply to energize the stamp machine’s pneumatic components. This control valve can be found where the main air hose connects to this unit. The main air regulator for the stamp machine should be adjusted for 95 psi. The second regulator which governs the pressure roller cylinders should be adjusted for 20 psi when a new stamp roll is used.

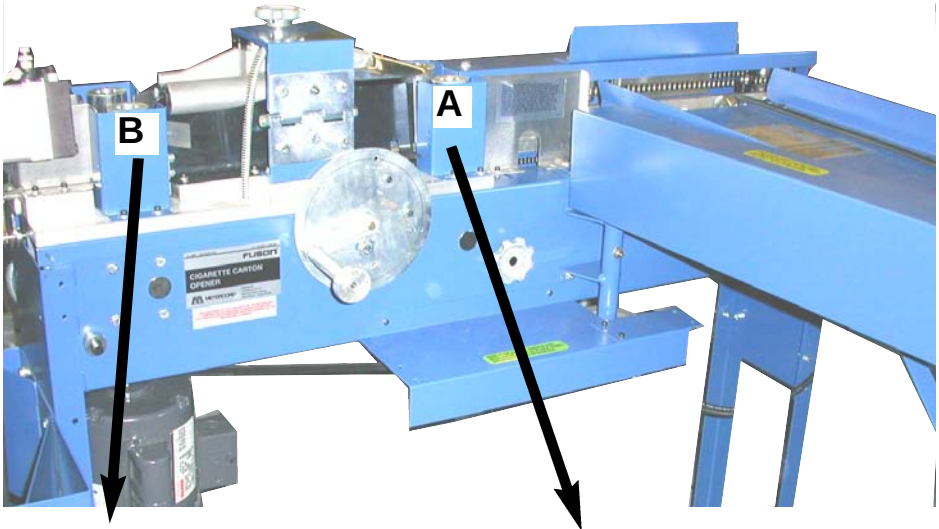
5. Open the main colored air valve on the closer to allow air supply to energize the closer pneumatic components. This control valve is located on the bottom of the closer pneumatic pane where the main air supply hose connects to this unit. The glue tank air gauge, located on top of the glue tank, should read 60 psi. Adjust if necessary.

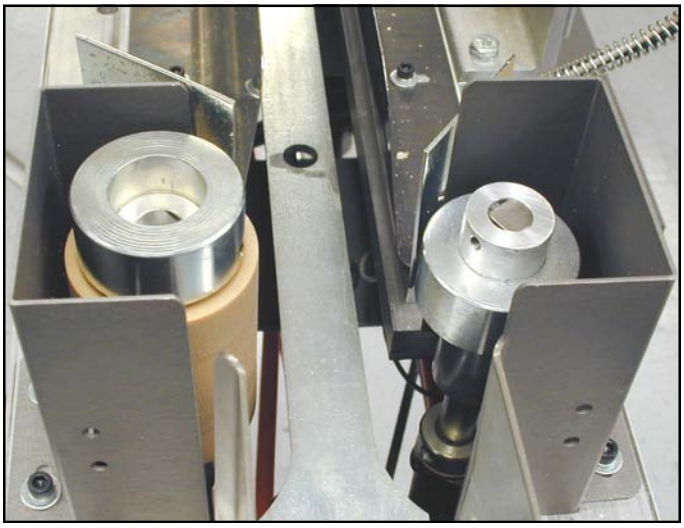
6. Pull out the red **“E” stop** switch mounted on the closer frame. Press the **green power “ON”** button to activate the closer. If the **yellow power “ON”** light doesn’t light, depress this button at this time.

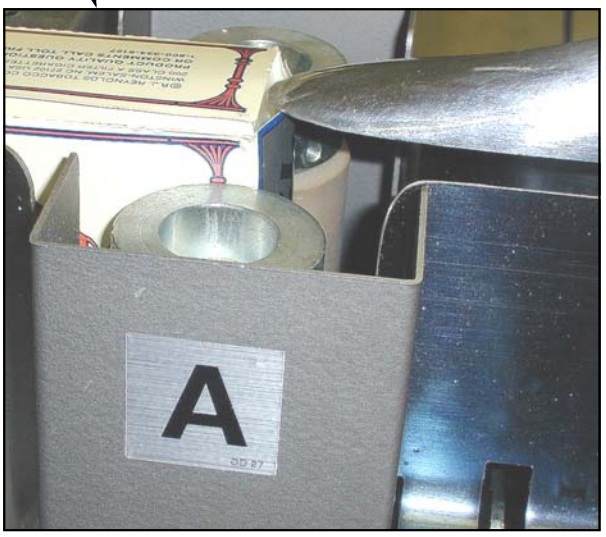
7. Thread stamp roll then turn on **“MOTOR”** switch located on the stamp machine front panel

M120 OPERATION

Please note that the cartons need to be placed on the in-feed tray with the **small flaps** facing <u>toward</u> the opener.







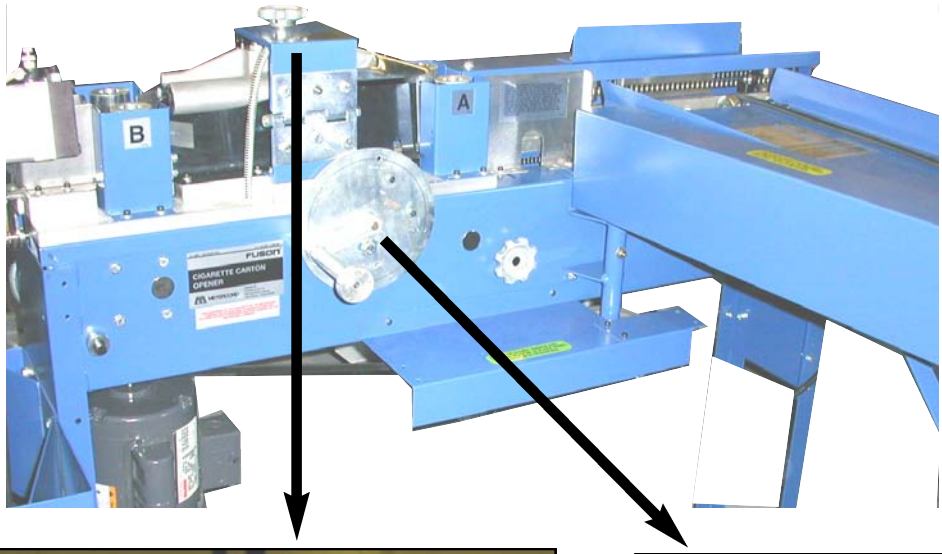
“B” ROLLERS

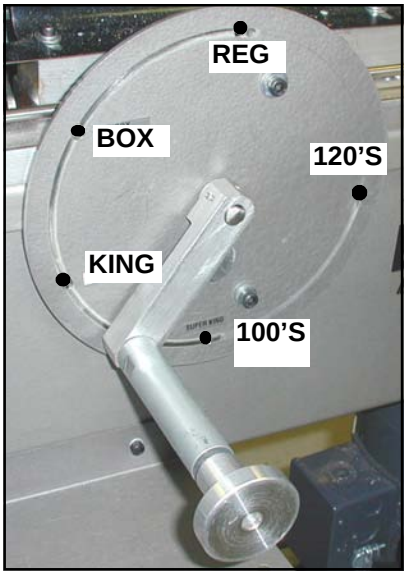
The “B” rollers are adjusted by turning the large adjusting wheel so the rollers move outward and away from the stamper (for larger cartons) or inward and toward the stamper for smaller cartons. This adjustment affects the carton’s position in the stamp machine, and ultimately the stamp placement on the packages. Use just enough pressure to properly feed the cartons. Excessive or inadequate pressure will cause stamping problems.

“A” ROLLERS

The “A” rollers introduce cartons to the opener and squeezes the cartons, forming a bow in the top of the flaps, so it will properly feed into the opener horn. Adjust the wheel until you see a slight pucker in the carton flaps.

M120 OPERATION



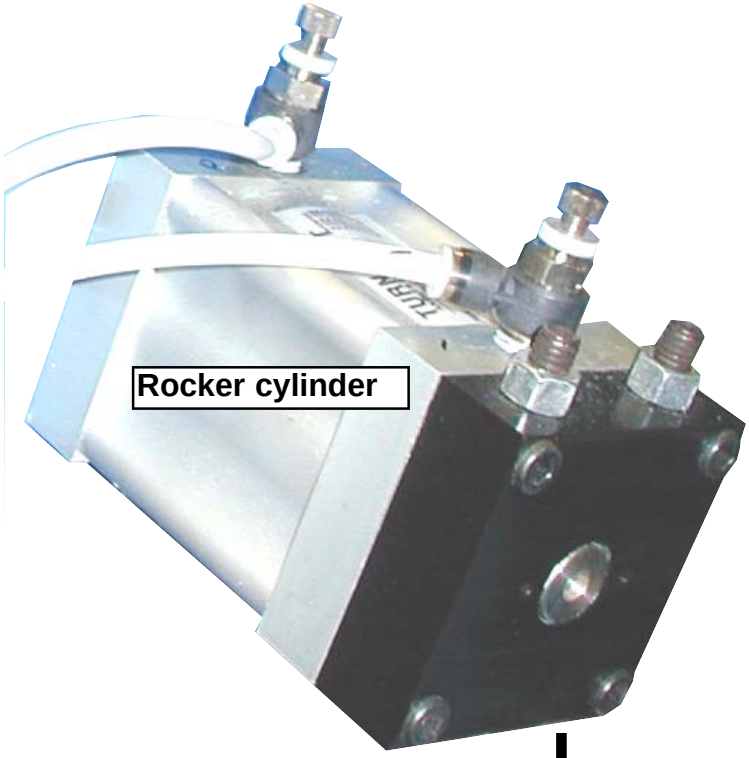


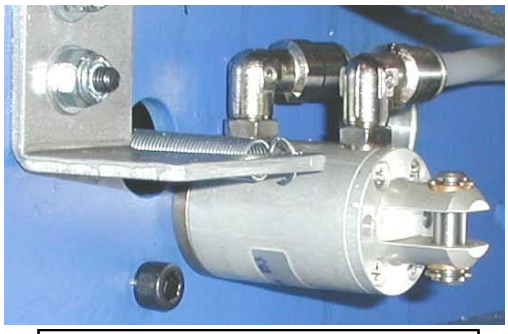
HORN ADJUSTMENT

The opener horn is the device that opens the carton flaps. The small knob directly above the horn changes the horn height in relation to the carton. To establish the proper height, open one carton and place it under the horn. When adjusted properly, the toe on the leading edge of the horn should rest lightly on the top surface of the cigarette packs. This setting may need changing from time to time to compensate for variations in "same" carton sizes from different manufacturers.

HEIGHT ADJUSTMENT

Moving the handle up or down enables you to adjust the trough height for the various sizes of cigarettes such as **Regular, Box, King,100's and 120's.** The adjusting handle acts as a pointer and indicates the correct setting for the cigarette size you wish to stamp. Remember, as you switch from one cigarette size to another, you will need to change this setting.





Gate cylinder (not shown)

Pressure roller cylinders

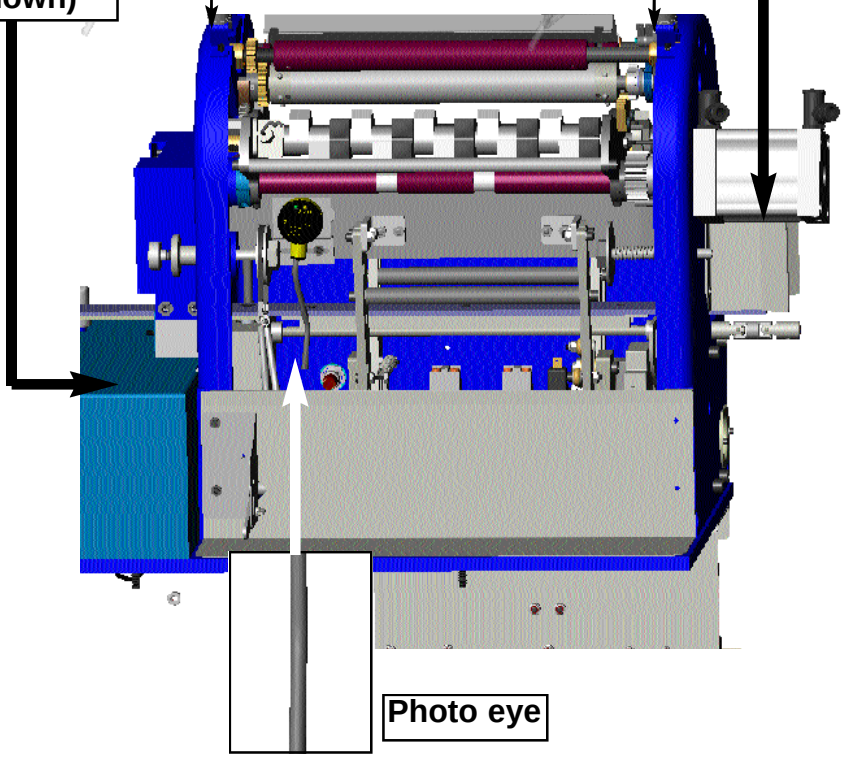
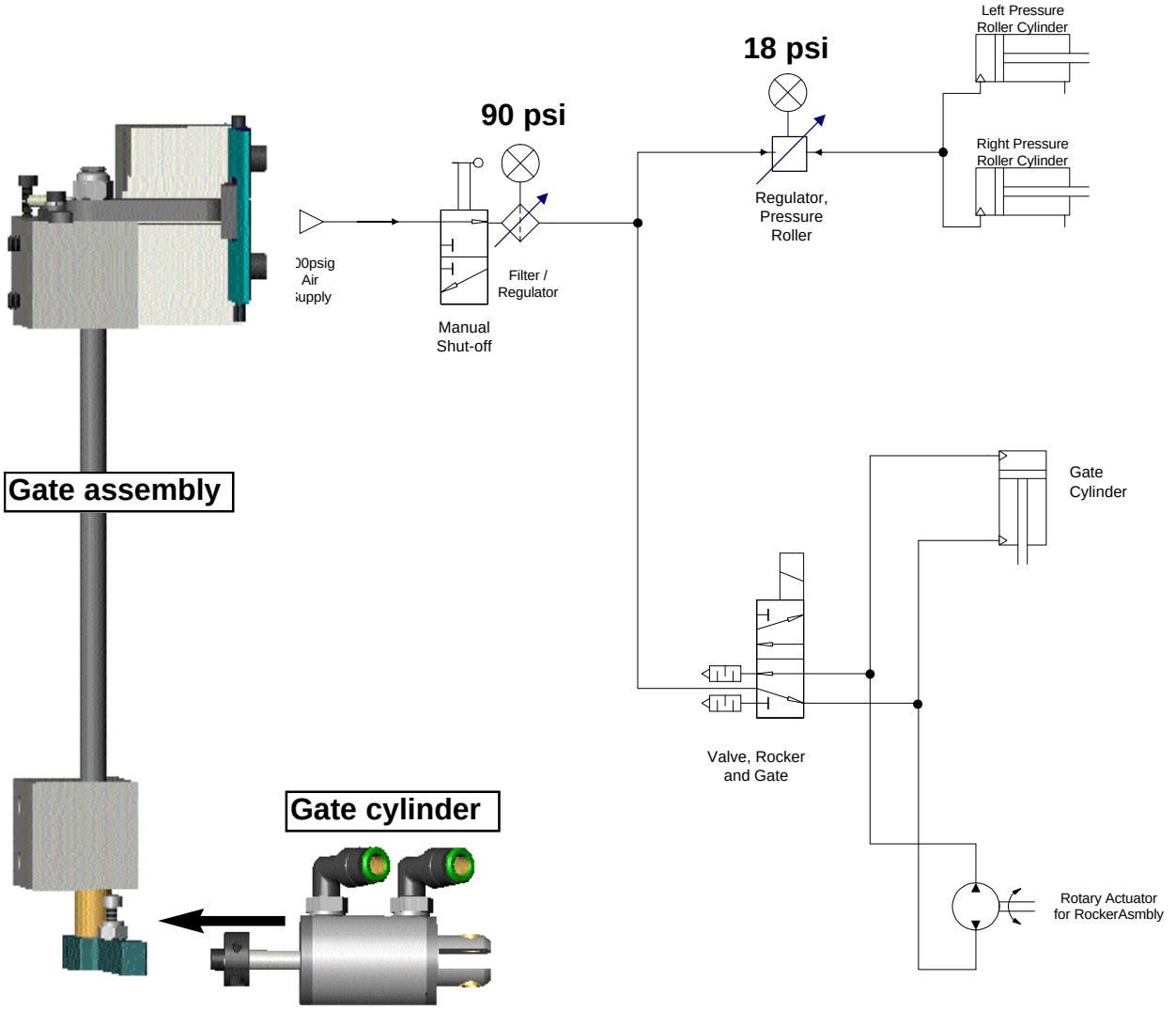


Photo eye

M120 OPERATION

As the carton enters into the stamp machine, it “trips” the photo eye which activates the gate cylinder to extend and release the gate. Approximately the same time, the rocker cylinder activates and rotates the rocker downward to apply the cigarette stamps. the next carton entering the stamp trough will push the first carton through the expeller at which time the gate will close and the cycle begins again.

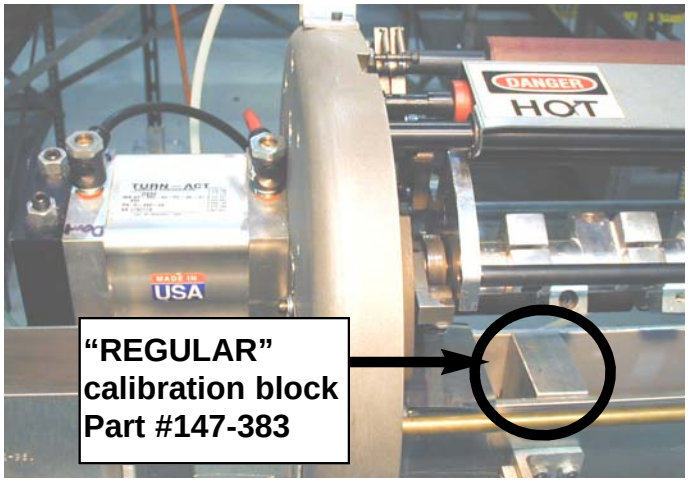


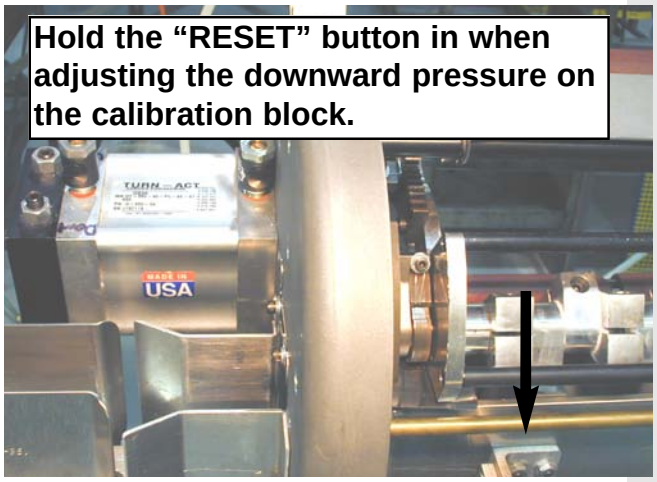
COMPONENT AND PART NUMBER CORRELATION			
Item Name	**Qty**	**Part Number**	**Description**
Filter / Regulator	1	207488	ASSEMBLY,REG,FILTER,125psig,1/4NPT,M120
Valve, Rocker and Gate	1	207543	Assembly,VALVE,3WAY,1/4NPT,Solenoid,120VAC
Regulator, Pressure Roller	1	207521	Assembly,Regulator, Precision High Flow
Pressure Roller Cylinder	2	148670	Cylinder,3/4" Bore,1/2" Stroke
Rotary Actuator for Rocker	1	207323	MOTOR,Pneumatic,Rotary Vane
Gate Cylinder	1	208181	Cylinder,1/2" Bore,1" Stroke

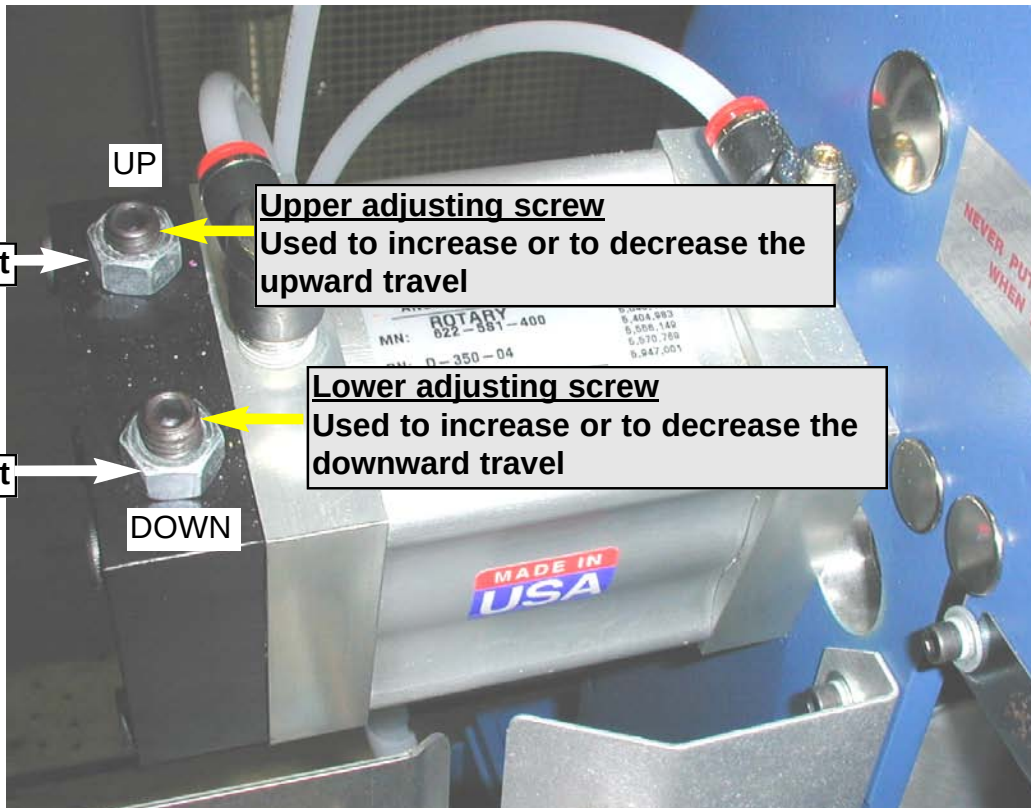
ROCKER ADJUSTMENT

NOTE: When adjusting the rocker, the rocker must be in the down position (Hold reset button) when adjusting the downward travel and up when adjusting the upward travel.

1. Turn Stamp machine main power “OFF”.
2. Set the stamp line height to “REG” position.
3. Place “REG” calibration block under the next iron pad to come down over the stamp machine trough.
4. Using a 9/16” wrench, loosen the two locking nuts which secures both adjusting screws on the rocker cylinder.
5. Turn on the “MAIN” power and “MOTOR” switches on the stamp machine.
6. Press and hold the “RESET” button and observe iron contact with the calibration block.
7. If the iron needs to travel down further to make more positive contact with the calibration block use a 3/16” allen wrench to turn the lower adjusting screw counter-clockwise (while the iron is still in the “down” (postion) to lower the rocker’s down postion. Turn this screw clock-wise if too much down travel or pressure exists.
8. After sufficient downward pressure is achieved release the “RESET” button and tighten the locking nut on the lower adjusting screw. You may have to hold the adjusting screw steady with the allen wrench while tightening its locking nut.
9. Press the “RESET” button several times and observe the upward travel of the rocker assembly. If the peg roller does not advance after cycling the unit three times, the rocker may not be traveling up high enough. Using the 3/16” allen wrench, turn the upper adjusting screw counter-clockwise to raise the rocker higher so the pinned ratchet engages on the gear/pawl assembly.


DANGER
HOT
USA
"REGULAR"
calibration block
Part #147-383


Hold the "RESET" button in when adjusting the downward pressure on the calibration block.
USA

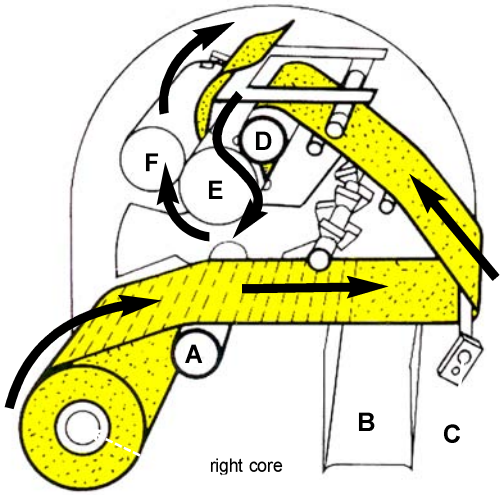

UP
Locking nut
Upper adjusting screw
Used to increase or to decrease the upward travel
Lower adjusting screw
Used to increase or to decrease the downward travel
Locking nut
DOWN
MADE IN USA

MEYERCORD

Stamp Loading

Before installation, **turn OFF the main switch**. Remove any old paper still threaded in the machine. Insert the roll by pulling the external knob of the right core holder **away** from the machine.

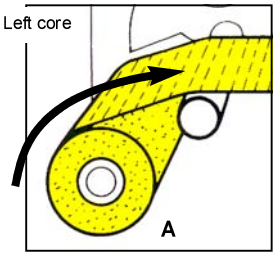
*Before installation, **turn OFF the main switch**. Remove any old paper still threaded in the machine. Insert the roll by pulling the external knob of the right core holder **away** from the machine.*



1 Insert the stamp roll so it is

firmly between the two core hold
important that the stamp roll sits
the left core holder. The paper m
top of the roll.

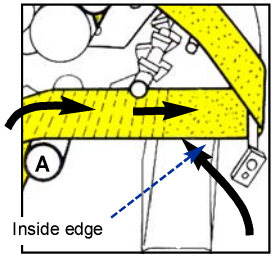
*Insert the stamp roll so it is **centered** and held firmly between the two core holders. It is very important that the stamp roll sits flush against the left core holder. The paper **must** lead off the top of the roll.*



2 Pass the sta

over the fib
ugh (**B**), and **under** the
paper until the first row
e inside edge of the fr

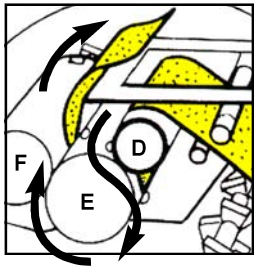
*Pass the stamp paper **over** the fiber roller (**A**), **over** the trough (**B**), and **under** the brass roller (**C**). Pull the paper until the first row of stamps lines up to the inside edge of the front trough side.*



3 Thread the p

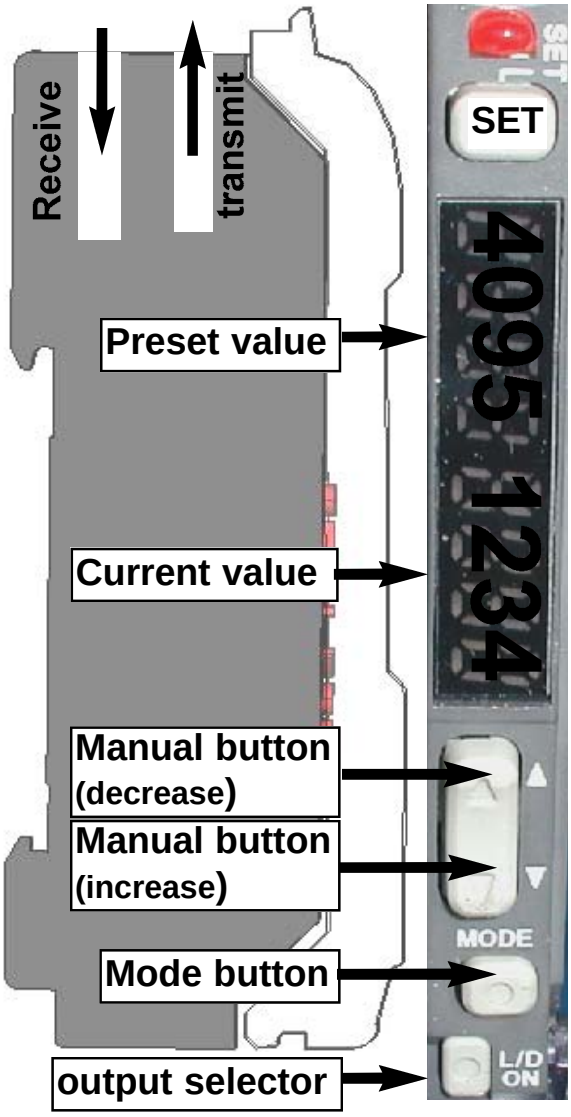
between the tw
etween the tan roller (**D**
/rap the paper **around**
the next pressure rol
paper should line up o

*Thread the paper **between** the two black shafts, **over and between** the tan roller (**D**), and the peg roller (**E**). Wrap the paper **around** the peg roller and **beneath** the next pressure roller (**F**). The holes in the paper should line up on the pegs (**E**).*



KEYENCE FIBER SENSORS

The glue nozzle and the small air jet are triggered when a carton passes through the light beams which are emitted from fiber units, as shown on the next page. The plate where these fiber units are mounted is located adjacent to the glue nozzle. The keyence fiber sensors are located adjacent to the motor and can be accesses by opening the smaller access panel which is above the motor. On top of these sensors, there are two fiber optic cables. One for transmitting a light signal and one for receiving the light signal as shown below.



keyence Digital fiber Sensor

Note:
If either the Glue jet or the Small air jet doesn't "fire" when a carton passes through their associated light beams, first verify that the tranmit and receive fiber units are in allignment. While observing the light beams, the plate that the transmit units are mounted on can be loosened and adjusted slightly to properly align.

The **Preset value** should always be approximately 4X greater than the **Current value** as shown here. This applies to the keyence sensor for the glue jet as well as the sensor for the small air jet. If this value is not great enough, than its associated output device will not respond.
To increse this value, carefully push the lower **manual button** until this value is sufficiently raised.

Small
air jet
(For large flap)

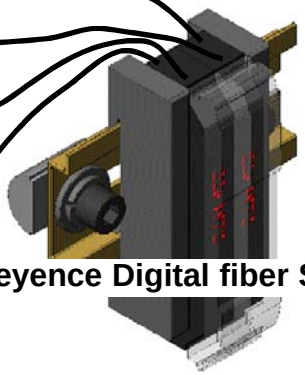
receiver

transmit

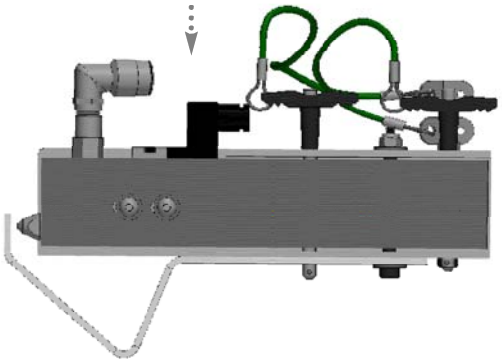
The light beams must be pointed directly toward the receivers to properly function

transmit

receiver



keyence Digital fiber Sensors



Glue jet